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ABSTRACT

The selection of nonprint software media for library media center agencies, as reported by the literature of library service, instructional technology, and education was investigated. Eleven textbooks and eight research studies were selected for review. The books were analyzed for their contributions to a theory of media selection, while the research was reviewed for indications of actual practice. Overall, the literature was fragmentary and not subject to generalization. The texts laid down principles without a theoretical framework for media selection. The studies had an educational emphasis, ignoring comprehensive media collections. Scant empirical data precluded comparison of theory and practice. Available evidence suggests that in an educational context, the teacher assumes the greatest role in selection, with the personal preview method the recommended means of selection. Evidence supported the texts in portraying conditions of selection as highly varied. To provide a survey of current practice in nonprint selection, further research is recommended. (KC)

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A STUDY OF THE REPORTED THEORY AND PRACTICE OF NONPRINT SOFTWARE MEDIA SELECTION

by

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ABSTRACT

The selection of nonprint software media for library media centers was explored through an integrative study aimed at synthesizing and assessing both theoretical and actual practices as reported in the professional literature of library service, instructional technology, and education. The problem's solution was analyzed in terms of who, how, and under what conditions nonprint media are selected. A group of eleven textbooks was examined for each work's portrayal of the selection process and then compared with eight empirical studies judged relevant to the topic. The textual literature was found to be fragmented, to vary according to the writer's professional orientation, and to present experience-based general principles of selection rather than an overall theoretical framework. The studies reviewed were found to be mostly noncumulative, exploratory surveys confined almost solely to educational institutions. Although the lack of research directly associated with the selection of nonprint software media for building integrated library media center collections precluded thorough comparison between selection principles and practice; overall impressions from the data available indicated that in an educational context teachers apparently exercise the greatest role in the selection of nonprint media, use the personal preview to evaluate each medium, and operate under a variety of conditions influenced by local priorities and circumstances. Where comparisons could be attempted, many of the principles

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I

NATURE OF THE STUDY

This paper is the product of an academic assignment for a doctoral seminar in school library service at Rutgers, The State University of New Jersey. An examination of contemporary school libraries quickly revealed the strong emphasis both in collections and services upon building and using a multimedia information base. The area of multimedia collection building specifically in regard to nonprint software, was identified as a major area of responsibility for library media center personnel and thus was chosen as the topic for this paper. The study reported here was designed as an integrative one, that is, with the purpose of reviewing and synthesizing both theory and practice in this area for the further use of researchers wishing to address the topic. While the results of this effort are presented in the hope of assisting with the illumination of this segment of the library media sciences, the most immediate and beneficial result of the study was the significant learning experience provided to the author.

BACKGROUND

The primary goals of the library media center have been expressed as providing informational, educational, and recreational resources to its constituent community. The professional role of the library media specialist has likewise been characterized in part as consisting of the processes of selecting, acquiring, organizing, retrieving, and dissemin-

ating materials of communication for clients in pursuit of the goals of the library media agency. Preparation for library media service reflects these functional emphases by offering to pre-service students course work inclusive of these topics. Indeed practitioners many times find their responsibilities falling within one or several of these areas. Often in the course of examining these five functions of library media service a ranking is made by order of priority for professional attention. Spirt (1973, p.3) describes the process of choosing materials for the library media center collection as foremost:

> Among the most professional tasks of the media specialist are the selection of materials and the guidance in their use. It is possible to draw an analogy between the selection process in librarianship and the diagnostic process in medicine.

Librarians generally acknowledge the professional character and importance of the selection/evaluation process and, as one example, the subject bibliographer in larger units of service is often invested with major responsibilities in building collections of media. As the science of library media practice continues to stress subject expertise, attention to critical reviews, and other selection aids, as well as input from outside specialists; most of the discussion concerning the selection of materials actually attends to printed materials (i.e. books, serials, etc.). While on the other hand, library media agencies are increasingly expanding their collections of materials to be more fully representative of the range of communications media available to our society. School

library media centers are in the acknowledged vanguard of this broadening movement, although each of the other types of library agencies may be found embracing the multimedia concept. It is relatively easy to document school use of nonprint media by the expenditure of $111 million in 1972-73 for software materials (Dukiet, 1973), while the total amount utilized in both education and business may be expected to increase sharply in the coming years (AV in Education..., 1974).

What then of the selection practices for nonprint media materials? If selection is one of the most important of the library media specialist's tasks, what is the underlying conceptual base supporting the process? Once the theoretical framework for selecting nonprint media has been discovered, what relationship does the theory have to actual practice? Does the rank and file library media center practitioner subscribe to the pronouncements of his professional guides and engage in the various techniques of nonprint media selection? What role do other individuals (e.g. teachers) play in selecting nonprint materials for library media centers? These questions form the foundation of this study which aims to explore through the published literature the state-of-the-art of nonprint media selection.

Specifically, this investigation proposes to:

1.) Attempt an assessment of the professional literature citing the topic of nonprint software media selection relative to the degree and type of coverage afforded.

2.) Uncover and interpret the known theory and practice of nonprint media selection for library media center agencies.

3.) Evoke tentative questions and hypotheses which might serve to guide future research in the area.

4.) Represent the writer's preliminary and exploratory effort in reviewing the topic as a learning experience.

PROBLEM

To what extent are the reported practices of selecting nonprint media for library media center agencies representative of the recommended procedures established by the theoretical literature of the field?

ANALYSIS

The solution of the problem called for determining from the literature the theoretical and actual practices of:

1.) Who selects nonprint media?

2.) How are nonprint media selected?

3.) Under what conditions are nonprint media selected?

LIMITATIONS

As the purpose of this study was to uncover both the theoretical framework and the actual field practices relevant to the topic under investigation, two types of literature were identified: basic manuals and data based studies. In addition, since the use and thus the selection of nonprint media is a predominate function of the educational process, it was deemed necessary to consult sources covering this field

as well as those concerned primarily with library service.

To carry out these objectives a group of arbitrarily chosen textbooks relating to the fields of library service and instructional technology (education) were first reviewed for the purpose of reconstructing the conceptual framework of the process of nonprint media selection. These texts were chosen primarily from the investigator's experience in the field and through familiarity with the intended purposes and audiences of each work. In addition, however, advice was informally solicited and received from colleagues in the field and the group of works actually reviewed was thus assembled.*

Second, a search of the major indexes and abstracts in the two fields was conducted (without any particular cut-off point in mind) with the purpose of identifying research studies bearing upon the topic. The emphasis in searching, however, was upon materials from the last ten years in order to attempt the provision of a reasonably current picture of the field.

While the aim of the investigation (relative to the literature) was to survey both the fields of library service and education, the primary objective was to identify documents concerned with the selection of nonprint software media from the library media center, or collection building point of view.

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* This method, though unscientific, was believed appropriate for the purposes of this study in circumscribing the general principles and theory of nonprint media selection.

Further, it was felt by this investigator that the state of media research in general is such that studies dealing with the instructional value of specific items of media (especially when compared with conventional teaching), and attempts to link media with learner characteristics would not add appreciably to the aims of this investigation and were therefore excluded. Van der Meer (1964) and Schramm (1973) are indicative of this school of thought, relating that the nature and scope of this type of media research has revealed little of substance and few generalizable principles. Further, Brown, Lewis, and Harcleroad (1973, p. 43) feel that there is, in general, an absence of readily available and reliable data about instructional media and its selection.

In order to access the literature for items documenting relevant research studies the following sources were consulted:

1.) Current Index to Journals in Education beginning in 1969 and through 1973 under the headings "media selection" and "media research."

2.) Dissertation Abstracts beginning with Volume Two, 1939-40 through Volume Thirty-three, December 1973 under the headings "selection," "instruction," "media," "audiovisual," and "evaluation."

3.) Education Index beginning with January 1938 and through June 1974 under the headings "audio-visual aids--evaluation and selection," "audio-visual communication--evaluation," and "audio-visual education--evaluation."

4.) Library Literature beginning in 1921 and through

June 1974 under the headings "AV materials--selection," "AV materials--evaluation," "aids," and "visual aids."

5.) Research in Education beginning with Volume One, 1966 through Volume Eight, 1973 under the headings "media selection" and "media research."

ASSUMPTIONS

In order to provide a base upon which the investigation could rest, the following premises were accepted as instrinsic to the study:

1.) Nonprint media are selected as conscious and deliberate acts by personnel working in the fields of library service and/or education and that these actions may be identified and described.

2.) Library media centers in school, academic, or public contexts are the only agencies significantly involved in the selection of nonprint media for the purposes of building collections of these media for use.

DEFINITIONS

In order to eliminate degrees of uncertainty when referring to terms and concepts prevalent in the fields under investigation the following definitions were included as germane to the topic of the study:

1.) Academic library--a library media center associated with an educational institution oriented toward post-secondary instruction and which strives primarily to meet the informational

and educational needs of the faculty and students of such an institution.

2.) Acquisition--the act of procuring from vendors items of nonprint media for a library media center once the decision of what items to obtain (selection) has been made.

3.) Educational Media Selection Center (EMSC)--a comprehensive collection of teaching and learning resources which serves as a depository for examination and selection and/or a place where in-service training programs associated with media selection and use are conducted.

4.) Evaluation--the process of determining if an item of nonprint media best meets a specified need for information or instruction. Usually performed in concert with selection.

5.) Instructional technologist, media director, AV director--an individual working in the context of an educational institution (school, college, or university) generally charged with the coordination of nonprint media and equipment primarily for the use of teachers and college faculty. May be located in and be part of the library media center depending upon local arrangements. Usually possessing an educational background, this individual is most often oriented toward instructional techniques rather than the retrieval of information.

6.) Instructional technology--the totality of processes involved in the application of media and technology for the purpose of improving the learning process. Concerned with the areas of media management, media product development, and

instructional program development.

7.) Librarian, library media specialist--an individual working in a library media center generally charged with the administration and implementation of the processes of selecting, acquiring, organizing, retrieving, and disseminating nonprint media for client use. Usually possessing a background in library service, this individual is most often oriented toward the retrieval of information to support instruction rather than with specific instructional techniques.

8.) Library media center--a generic designation for an agency either associated with a parent organization such as a school or academic institution, or functioning independently to serve the needs of clients for nonprint media through the provision of a collection of such items.

9.) Library service--the totality of processes involved in making stored collections of media materials available to constituent clients for use. Concerned with collection development and organization as well as client utilization of materials and services.

10.) Nonprint media (software)--items of recorded information appearing in other than printed formats. Usually referred to as audiovisual materials, but specifically excluding equipment (hardware).

11.) Public library--a library media center existing as a social agency striving to meet the informational, educational, recreational needs of the general public within a constituent area.

12.) School library--a library media center associated with a school (or district grades K-12) striving primarily to meet the informational and educational needs of students and teachers.

13.) Selection--the process of choosing from among available nonprint media, that item or items intended for a specific purpose, i.e. addition to a library media center collection or to meet a specific instructional need.

14.) Teacher--an individual charged with the responsibility of instructing students. Usually located in a classroom environment.

II

ANALYSIS OF THE DATA

As the aim of the investigation was, in part, to compare the general principles of nonprint media selection with actual practice, it was determined necessary to first review textual works hopefully embodying the former, while empirical studies revealing the latter would be reviewed afterwards.

Four categories of texts were examined, each with an easily identifiable point of view depending upon the primary audience for which intended:

1.) Materials selection for librarians.

2.) Administration of nonprint media for librarians.

3.) Administration of nonprint media for instructional technologists.

4.) The selection, procurement, and utilization of nonprint media for classroom teachers.

As only eight research studies were uncovered which were judged relevant to the topic of this paper, no grouping of individual studies was attempted but rather a simple chronological arrangement was followed.

THEORY

In the first category of textbooks for librarians two major works were represented. Carter and Bonk (1969, pp. 91-105) devoted a slim chapter of fourteen pages to the "Selection of Non-Book Materials." Stressing the long history of libraries in the collection of non book forms, the authors express what they term an "increasing concern" among librarians

with the problems of selecting nonprint materials. They advocate selecting nonprint media using the same principles as in the selection of books, e.g. seeking the best material in terms of authority, accuracy, effectiveness of presentation, and usefulness to the community. In addition Carter and Bonk recognize that selection will be affected by the type of library (public, school, etc.), its size, the community, and the librarian's conception of the purposes of the library as an institution. Further, the authors stress the importance of calling upon experts in the subject matter presented by nonprint media and accessing review sources for evaluation of each item. This is all very similar of course, to the process employed for selecting books. Carter and Bonk caution that attention must be paid to the technical matters involved in the production of the nonprint item and advise the librarian to seek expert counsel in the way of published reviews. Overall, Carter and Bonk do not convey the impression that selecting nonprint media is a particularly difficult task but rather in administering these "newer" materials:

> The major problems involved in the non-book field are really not selection problems, but administrative ones. The difficulties involved in handling such material, once acquired, may be related to selection in that they may lead the hesitant to avoid the problem altogether by not selecting films or records" (p.92).

The authors go on to discuss the methodology of selection for a few nonprint mediums from a decidedly public library point of view. The matter of previewing an item of nonprint media prior to purchase is mentioned in the context of select-

ing films. Here the matter of expense is related to the need for preview. While somewhat dated when referring to technical matters, the viewpoint is clear that the librarian is responsible for choosing nonprint media for addition to the library's collection. This action is presumably taken with the various needs for nonprint material by the library's clientele kept in mind.

The second item from the library text category was Broadus (1973). This work, like Carter and Bonk, is intended to serve as a basic manual of instruction for librarians involved in building library collections. Part Four of the work, consisting of three short chapters, speaks to the issue of "Non Print Materials" (pp. 129-154). In a longer introduction than Carter and Bonk, Broadus relates essentially the same background material professing that libraries have always collected and stored a variety of materials. Advocating a philosophy of treating nonprint media in a manner equal to that of books, Broadus suggests that it is impossible to draw lines between information mediums. The author continues with the viewpoint that once introduced, nonprint media are as popular with library clients as the more familiar printed forms. The problems of selection, then, are increased since the librarian must now become expert in many formats and from a "formidably larger" field. Broadus also introduces the reader to the importance of a materials selection policy usually in the guise of a formal statement endorsed by the administrative body of the library. This statement should define the scope

of nonprint media collected, give the criteria used in selection, and outline the policy of purchasing and rental.

The collecting of materials for use by individuals is stressed and the librarian is portrayed as acting essentially as an agent for his client group, selecting specific nonprint media items from among the plethora available based upon his knowledge and understanding of the needs of his constituent client group. The author recommends that as with books, the selector should always attempt to scrutinize each item of nonprint media personally so as to form his own opinion as to whether to accept or reject them. Further, library agencies "should provide pleasant facilities for both library staff and classroom teachers to preview new productions" (p. 142). Since as a practical course the librarian can only rarely examine items personally, Broadus suggests that it will be necessary to rely upon critical reviews and guides. For even when a medium is previewed, a critical review will assist the selector in formulating an "accept" or "reject" decision. The catalogs of nonprint producers and distributors are also portrayed as potentially valuable to the librarian in selection and thus should be kept on file for future reference. Broadus never offers explicit details on the procedures for locating nonprint media reviews or on how best to organize a producers' catalog file, but does say that finding reviews for nonprint media is a "greater problem than obtaining reviews of books" (p. 145). As for selection criteria, seven general questions are listed for the librarian to apply in choosing nonprint media.

Most of these parallel familiar references used to judge books, "but are, if anything, even more difficult to apply" (p. 140).

The next category of items examined was that of monographs oriented toward the organization (administration) of nonprint materials for an audience of primarily school librarians. Rufsvold (1949), the first work perused, is a classic which served to introduce the concept of "audiovisual" services to many librarians. Rufsvold recommends from the onset of Chapter Two, "The Selection and Use of Audio-Visual Materials" (pp. 13-54), that nonprint materials be selected cooperatively by teachers, principals, librarians, and sometimes with the assistance of students. Based upon a knowledge of the school and its community, first hand examination of materials is suggested as basic, but that standard evaluation aids should supplement local opinion. The "art" of selecting nonprint media is in evidence by the statement that gaining acquaintance with the several types of materials is an overwhelming task and that the classroom teacher should be assisted by the librarian in obtaining appropriate materials. Evaluation criteria echoing the standards of truthfulness and technical quality are offered in rather vague form. Rufsvold discusses the general principles for selecting films after which she moves on to other mediums one by one. As the majority of her discussion is devoted to aspects of utilization, selection procedures are never fully treated. Perhaps the best statement of Rufsvold's view of selection is that found under the section dealing with film:

> The only approved method for selecting and appraising film is first hand preview and experience. Even the best evaluations, when

> made by others can be only guides to selection. Current best practice calls for a preview as near as possible to the time and place of eventual use. The film librarian on the basis of reviews, or upon suggestions from teachers, obtains the print from the producer or distributor. Representatives of the instructional staff are called in to preview the film, to determine its uses and to decide whether to purchase or rent. The combined judgement of the group is based not only on the preview, but also in experimental use of the film in classrooms and the results in terms of pupil achievement. This procedure ensures the selection of films consistant with curriculum development and accomplishes the integration of the film with the course of study. When teachers are given a decisive voice in the selection of instructional materials they assume responsibility for the effective use of these materials (p. 19).

Therefore it seems that client input in the selection of materials is considered essential and optimumly utilizes a group preview mode. The librarian assists the teacher in the process and as such maintains a file of catalogs, finding lists, and professional journals for the teacher to peruse.

Presenting a text on school library service, Saunders (1968) introduces the concept of a written selection policy to guide media selection practice in a chapter of her book entitled "Selection and Acquisition of Materials" (pp. 87-117). As most other textbook authors, Saunders advocates that "ideally all materials, both print and audio-visual, are actually read or examined before a decision is reached to purchase them or not" (p. 89.). Realizing, however, that this is seldom a practical course of events, she relates that librarians should rely upon lists and catalogs of media materials selected and annotated by experts. The author further recommends that teachers preview media items and complete

an evaluation form to be held on file by the library for the use of future selectors.

The use of publishers' lists and catalogs is discouraged as these are merely descriptive in nature, but the combined use of review guides and local preview will, when considered in relation to the needs of the entire school, "go a long way toward making wise selections" (p. 95). Librarians and teachers are urged to select a variety of different media from the abundance which are available. Saunders clearly gives classroom teachers shared responsibility with librarians for selecting materials for school libraries for as subject experts, teachers theoretically know what materials are best in their field. Saunders adds that, "regardless of who takes part in the selection of new library materials the professional library staff has final responsibility for what is actually ordered" (p. 102).

Providing perhaps the most detailed advice for librarians faced with selecting nonprint media, Hicks and Tillin (1970) present the process as a rather difficult task. First, because of the ever increasing volume of materials available, the use of selection aids is mandatory. These aids (to the extent to which they are available), however, are largely inferior in quality when compared with those dealing with books. Further, most of the guides available are targeted for school libraries where most of the interest in nonprint media is centered. Hicks and Tillin feel that the development of Educational Media Selection Centers (EMSC) will

better enable both teachers and librarians to select nonprint media through actual examination. Teachers are portrayed as having an active role in the selection of materials for school related libraries and Hicks and Tillin represent the factor of "involvement" as a high correlate to knowledge of and (implied) eventual use of materials by teachers. The variable of previewing is treated fairly comprehensively, but with an equivocation as to its usefulness:

> Although personal reviewing, previewing, and auditioning have long been considered the ideal methods of selection, their feasibility is limited by several factors. Chief among these is the increasing volume of resources now being produced and the consequent decreasing amount of time available for individualized inspection (p. 30).

The authors conclude that although the use of evaluative reviews could be as successful with nonprint selection as it is currently with print, previewing will remain as the principal source of information due to the incomplete nature of the majority of reviews available. Previews are hampered by several factors identified by Hicks and Tillin including scheduling, short preview time, in house (non-circulating) preview policies, and the fact that some items are not available for preview. Factors favoring preview include the belief that previewing determines the degree of library potential, evaluates the medium itself, judges the item's capacity for integration with instruction, enables ascertation of technical quality, and offers the opportunity to appraise subject content. Previewing is portrayed as a demanding task requiring the skill of varied personnel operating as a group using pooled

talent. Published reviews are lacking as selection aids because few are available, they often are not critical, and there is a general lack of multiple reviews. The authors' point out that the selector of non print media must distinquish between descriptive and evaluative reviews and be wary of their contents. Producers' catalogs are once again recommended as selection aids because of the incompleteness of the available evaluative guides. Finally, the completion of evaluative documents by selectors, usually in the form of a checklist, is recommended and also that these items be retained on file for further reference.

Davies (1974) treats the selection of nonprint media strictly from the school library media center point of view. Stressing the unique nature of each individual school, the role of the librarian should be to build a "quality collection" based upon policy statements by the American Association of School Librarians and such documents as the School Library Bill of Rights for School Media Programs. Davies consistently represents nonprint media as linked with the instructional aims of the school:

> Materials to be used to support the educational program should be judged objectively, preferably at first hand with care, discrimination, and discernment (p. 76).

Teachers are to be utilized for their specialized knowledge of the curriculum to select nonprint media and to benefit themselves by expanding their knowledge of resources. Students as well are recommended as candidates to assist the librarian in nonprint selection. The benefits accruing from student

participation, according to Davies, include "objective evaluation" of nonprint media and a valuable educational experience for the pupils. Most importantly, the librarian must be thoroughly familiar with the school's curriculum in order to select the appropriate media for the school library collection. Presumably this is to be accomplished by examining curriculum guides and conversing with teachers. However, specific criteria for the librarian to follow when selecting items of nonprint media are not offered. Instead Davies feels that:

> To promote uniformity and objectivity in evaluating instructional resources, it is recommended that each school district develop specific criteria with matching checklists to guide media selection (p. 78).

Thus the integrity of the individual school is upheld while the notion of selection as a largely local and personal matter on the part of teachers and librarians is promoted.

The third category of materials reviewed was that group concerned with the administration of nonprint media by instructional technologists. Erickson (1968) in a section of his book devoted to evaluating media for selection (pp. 65-83), identifies the occurance of two levels of selection in a school situation. The first is the classroom teaching level. Here the teacher selects from local (school) or remote (commercial or outside agency) sources and carries out an appropriate pre-use examination or preview. The second level is concerned with the school system as a whole. Here the instructional media director assumes responsibility for the selection of the best materials teachers need to do their

job effectively. This would most readily translate as designated professionals choosing materials for a local library media center collection with the needs of the users (teachers) kept foremost in mind. This is similar to the selection practice espoused earlier by Carter and Bonk (1969) and Broadus (1973). Linking himself with Saunders (1968) and Davies (1974), Erickson feels that:

> The best basis for selection of materials at both levels is their probable contribution to valid teaching purposes, their excellence in technical quality, and their suitability for known groups of learners (p. 66).

The media director is told to gain as much experience as possible with media by screening, viewing, listening or otherwise examining materials as he is empowered with coordinating selection whether at the first or second level and assumes final responsibility for actual purchases. Evaluation criteria are offered by Erickson in some detail with general criteria for all media and additional criteria for specific mediums. All relate to the educational benefit or technical quality of each item. These criteria according to Erickson will aid the media director and his "teacher deputies" in making correct decisions. Teachers are to be engaged in the selection process as advisors to the media director since they are subject specialists while the media director is a media and methods specialist. The actual selection process should consist of one or more of the following methods:

1.) Preview panels.

2.) Classroom tryout.

3.) Preview by individual teachers.

4.) *Use of all methods in combination.*

Once again the reliance upon personal preview of nonprint media is advocated as the best overall method of selection. "There is little doubt that a group judgement by teachers who are to use the material will be the safest procedure to follow" (p. 69). Finally, evaluations of nonprint mediums should be recorded on a form developed by the media director and kept on file for further use.

Brown, Norberg and Srygley (1972) largely complement Erickson and complete this category of works examined. In a section of their text entitled "Selection Policies, Criteria and Procedures" (pp. 167-177), the authors state that the selection of nonprint media must be consistent with the official policies of the parent institution, use valid selection criteria, and be smoothly executed to purchase the best materials. Selection is shared by the total faculty of the school and expedited by consulting reviews, recommended and standard lists, bibliographic tools, and special releases. There may be an official selection committee in a school situation whose "chief function is to suggest ways and means of enlarging and refining the quality of instructional materials collections and to recommend policy actions related to them" (p. 169). Media directors should exercise a leadership function in relation to this committee. Criteria for selection including appropriateness, authority, interest, organization and balance, technical quality, and cost should all be considered in the selection process.

Nonprint media selectors are portrayed as needing to be familiar with:

1.) Potential value of each medium.
2.) Body of material currently available from which to choose.
3.) Resource information about materials.
4.) Standard and special purpose lists.
5.) Current periodicals and other publications which review materials.
6.) Educational Media Selection Centers offering advice and opportunity to examine materials.
7.) Criteria to apply in evaluating media.
8.) Experts in subject fields available for advice (p. 171).

Thus the selection of media materials requires specialized knowledge and skill which the media director possesses and through training sessions and other forms of in-service programs should instill in his teacher-selector colleagues. An additional responsibility of the media director is to develop media evaluation forms and a manual of instruction for evaluating media with specific criteria. While teachers may select individual items of media they should forward their choices to the media director who coordinates purchase recommendations and arranges them by priority. However, the role of the teacher in selecting media may be more comprehensive than initially described:

> In addition to committee action, individual teachers sometimes assume responsibility for continuous evaluation of materials related to their teaching fields to be recommended for additional purchase (p. 175).

It thus seems that the position of the teacher in selection changes in relation to the media director but that the media director, at least theoretically, maintains final authority over actual titles for purchase.

The final category of texts examined was that concerned with the utilization of media by teachers. Wittich and Schuler (1967) discuss various mediums of instruction in a chapter by chapter discourse. The section "Effective Selection and Use of Teaching Films," located in the chapter on motion picture film (pp. 429-36) is representative of the treatment of nonprint selection by the authors of this work.

Teachers must recognize first that from among the many media available only a few can be selected for actual use. Considerations must include the medium's characteristics, quality, organization, and accuracy. Seeming to contradict almost all of the works reviewed above, the teacher is portrayed as the most important person in the nonprint selection process. "The responsibility for selecting films for classroom viewing rests entirely with the teacher" (p. 430). The teacher must exercise his judgement as to which medium to use for a specific instructional purpose as well. Once the decision has been made as to which medium to employ the teacher routinely previews the specific title desired. While there is "no substitute for previewing" (p. 431) the teacher also must record his judgement for future use:

> Methodical previewing leads naturally to record-keeping. Preview records kept over a long period of time enable the teacher to be informed about useful films in his subject area (p. 431).

Wittich and Schuler emphasize teachers as selecting nonprint media exclusively for their classrooms without mention of the library media center or its staff.

Dale (1969, pp. 161-85) in a subsection of his chapter on "Using and Evaluating" recommends that the individual teacher always have a definite instructional objective in mind when initiating the selection of nonprint software media. Teachers are portrayed as participating on the school's selection and evaluation committee for media materials as well as making selections for their classroom activities. Dale offers four steps in selecting media:

1.) Become well acquainted with basic sources of media.
2.) Preview media.
3.) Understand when to use media to achieve objectives.
4.) Plan for follow-up and continued evaluation (p. 166).

As with Wittich and Schuler (1967), Dale places the responsibility for selection upon the teacher as only he understands which material is best suited to his objectives. Dale mentions that "administrative staff" do provide assistance to the teacher, but that over-reliance upon this help is unwise. The school library media center and its staff are pictured as enabling "teachers and students to find, select, and evaluate instructional materials in any form" (p. 170). Thus the emphasis Dale provides seems to be for the teacher to select materials from the existing media center collection. Previewing is essential for all teachers when choosing nonprint media for use. Largely because of the quantity of material available, according to Dale, the teacher should preview by taking the item home, reading a review, consulting with a selection committee composed of teachers, and utilizing the special guidance available from the school library media center staff. The

criteria by which each individual teacher judges the available nonprint media includes accuracy, meaningful contribution, appropriateness, physical condition, availability of a teacher's guide, helpfulness to students, and instructional usefulness.

The last text examined was that by Brown, Lewis and Harcleroad (1973). In the section "Selecting Media for Purchase" (pp. 43-5), the authors reinforce the view of Davies (1974) that nonprint media selection is essentially a unique local function:

> In the absence of more readily available, reliable field-test data about media, most schools and districts as well as regional state offices carry on their own media selection activities (p. 43).

Teachers are once again portrayed as exercising a major role in the selection of nonprint media by serving on selection and evaluation committees. These committees often perform "preliminary screening" which serves to eliminate items not readily applicable to the school curriculum. Materials found deserving of further attention, however, are brought in for final evaluation. Generalized criteria for media selection are listed as validity of purpose, content usefulness, appropriateness of the medium employed, evidence of valid field testing, instructional value in relation to cost, and suitability of the item in relation to intended use. The authors advise that specific criteria will be supplied to the teacher asked to serve on a selection/evaluation committee. The teacher's responsibility then is to choose from among the commercially available nonprint media "those which come closest

to meeting local needs" (p. 44).

PRACTICE

The earliest study located was one initiated by the Research Division of the National Education Association (NEA, 1946). This study probed audiovisual supervision in urban school districts with one section involving the selection of equipment and material. The design of the study was a survey of variously sized city school systems with information gathered by means of a questionnaire. Three of the four areas included in this section of the study pertained to personnel who select nonprint materials for purchase, rental, and exercise responsibility for judging the suitability of free films used in schools. The data indicated that individual teachers by far (39 per cent) had the chief responsibility of selecting nonprint media for purchase. Representative staff committees, the school principal, the AV director, and the superintendent of schools, followed with 22, 15, 11, and 9 per cent respectively. Similiar rankings followed for the selection of rental and free films. The librarian was mentioned only in connection with these last two categories and then only as the least ranking person or group responsible for selection. The study's investigators observed that the methods for selecting materials and equipment varied greatly from city to city and even within cities at different times. The responsibility for selection of materials, however, was clearly indicated as primarily a function of teachers and principals

whether individually or as members of staff committees. A generalization made by the study was that it is relatively important, judging from the role of teachers in media selection, to choose materials on the basis of actual classroom needs. No single administrative plan was demonstrated as superior by this study for the selection of audiovisual materials and equipment and "infinite variations in policies and procedures are entirely feasible, even when striving to reach similiar goals" (p. 144). The study investigators concluded by recommending that school districts establish some mechanism for coordinating the selection of audiovisual materials and equipment and that a balance be maintained between judgements for selecting items based upon technical considerations and those pertaining to specific classroom needs.

The selection and evaluation of films in university film libraries was studied by Guss (1952) and formed the basis for her doctoral dissertation. Designed to uncover the practices followed by university film libraries in selecting films for their collections, Guss and her assistants interviewed and observed practices at twelve universities. The findings generally indicated that the staff of the audiovisual center (film library) were primarily responsible for film selection with some faculty participation noted. Many duplicate copies of each film were found to exist with 28,013 titles and 63,686 prints available. Each film was evaluated separately according to its specific frame of reference. Guss compiled a

list of criteria utilized by the audiovisual staff when evaluating films for selection consisting of pyschological, technical, content, and general factors. Guss recommended encouraging more faculty participation in film selection and closer cooperation among producers, users, and university film departments.

The audiovisual tasks in selected schools were the subject of Bernard (1955). Employing structured interviews at fifteen randomly selected vocational and adult education schools in Wisconsin, the investigator found that generally there was a lack of a materials purchasing policy to guide the selection of audiovisual materials. In addition, few if any organized procedures for previewing, evaluating, and in general selecting materials existed in the schools studied. The impression that audiovisual functions were casually treated by the subject schools was clearly evident.

Blake (1955) attempted to identify areas of agreement and disagreement between film producers and audiovisual directors relating to previewing films for purchase so that cooperation might be promoted. Utilizing a pilot, closed ended questionnaire (on six topics sent to seventy-six California audiovisual directors), Blake designed his main study which included ten topics sent to over 150 audiovisual directors and producer-distributors. The second questionnaire was slightly modified for each of the two target groups. The findings indicated that between one and six previews per week were performed by audiovisual directors with producers preferring to set a limit

of three. Usually one week was the length of time for previewing any one film with weekly or monthly preview sessions most often reported. The exchange of preview results among reviewers was generally favored while many problems involved in implementing the process were often expressed. Audiovisual directors reported spending less than 20 per cent of their time previewing while producers felt directors should devote about a third of their available time to the task. Each film was reportedly subject to the same intensity and routine of review while the process of sending films out automatically for preview was not preferred by three-fourths of the directors responding. Small audiovisual departments were seen as deserving the same preview priviledges as large departments by 82 per cent of the directors and 95 per cent of the producers. Over one-half of all respondents felt students were good judges of the value of a film. Sixty-five per cent of the respondents preferred preview committees write out their film evaluations, however, serious questions were raised as to the value of the preview committee itself. Factors such as the difficulty in gathering preview committees together and in discussing the relative merits of each film were noted. In addition, comments from directors indicated that preview committees need to be formed by interest area and level, have release time to perform their tasks, utilize a written evaluation guide as a means for promoting uniformity. Interestingly, department heads and supervisors were reported as performing the preview function quicker and more efficiently. Blake con-

cluded that:

> While the findings of this study revealed that committees were generally preferred, the findings also showed that relatively few audiovisual directors were actually using them. Among those who were employing preview committees, there were variations in practice, selection and function (p. 26).

Gillingham (1958) attempted to analyze methods of selection and evaluation of audiovisual materials and to offer conclusions relating to the best methods of involving school personnel in the process. In addition, the investigation tried to identify the duties of these persons, procedures necessary to carry out these duties, and the function of the audiovisual staff in the program. Designed as a survey based upon questionnaires and individual and group interviews, the study was aimed at forty-five schools and 131 individuals in Houston, Texas. The study found that committees of teachers were largely responsible for the selection and evaluation of audiovisual materials with media directors serving in an advisory capacity to these groups. The functions of these committees were found to range beyond just preview of new materials and to include making recommendations for duplication and withdrawal and designating "basic films." No set evaluation method could be determined to exist but rather general guidelines were found. These included studying materials in the subject fields to determine areas short of materials; requesting preview materials; previewing in two or more classrooms; previewing, evaluating, and discussing all items at one committee meeting; and selecting materials

for purchase within specific budgetary limits. The role of the audiovisual director was found to include setting up the preview program in advance, making instruction and training in preview techniques available to the faculty members involved, and assisting committees as they carried out their work. Generally it was found by this study that the survey respondents felt teachers were responsible for selection by means of the preview committee with the assistance of the audiovisual staff which served in a resource capacity.

Another study by the Research Division of the National Education Association (NEA, 1970) attempted to determine the degree of participation by teachers in the selection of instructional materials for their school districts. A nationwide survey of a sample of public school classroom teachers revealed that 57.9 per cent of those questioned reported participating in the selection of instructional materials (e.g. textbooks, films) at the local building level. More secondary (62.4 per cent) than elementary (53.5 per cent) school teachers were found to be active at the building level with almost the same ranking for men (63.3 per cent) when compared with women (55 per cent). School systems with fewer than 25,000 students were shown to exhibit more active teacher participation than larger systems in the selection of materials and equipment. Teachers were also queried as to their sources of information about instructional materials and equipment. Advertisements in professional journals were ranked most important by 75.4

per cent of the teacher respondents with educational exhibits at education association meetings, releases from commercial companies, other teachers, administrative or supervisory personnel, and salesmen following. Secondary school teachers relied more heavily upon releases from commercial companies and salesmen while elementary teachers looked to administrative and supervisory staff more often. The investigators concluded that:

> Classroom teachers are extensively involved in the selection of instructional materials and equipment, though chiefly at the building level; that most of them feel adequately informed about new materials and equipment; and that they rely primarily upon professional channels for receiving commercial information about new products (p. 16).

A major study (Rowell and Heidbreder, 1971) conducted under the auspices of the American Library Association and sponsored by the United States Book Committee aimed at examining existing educational media selection centers (EMSC) for the purpose of contributing to the improvement of the selection and use of educational media. Conceived as requiring several stages for complete implementation, Phase I surveyed existing facilities and examined programs which introduce teachers, librarians, and others to the wide range of media available for educational use. The methodology of the first phase involved a piloted and revised questionnaire sent to all known centers (N=1995) with 440 of the identified centers being targeted for a second, more complete follow-up instrument. Then on the basis of the data provided by the second questionnaire

thirty-eight centers were selected for on-site evaluation by two and three person teams. The teams were supplied interview schedules to use with the EMSC staff and users, the data from which written team reports and later group discussion sessions were based. The site visits were intended to expand and re-inforce the information gleaned from the questionnaires. An ideal model of an EMSC was formulated as consisting of a wide variety of professionally evaluated and purchased media and a full scale training program in the techniques of selecting and using media. However, the findings related that overall very few EMSC's existed as orginally envisioned; but that a pressing need for the establishment of such centers seemed to exist. Eleven specific findings related to the topic of this paper were identified from the study by this reviewer and are presented below:

1.) The most frequent users of EMSC's are teachers (45 per cent), with administrators and supervisors (21 per cent) next, and librarians/audiovisual specialists (18 per cent) comprising the third group.

2.) The two most often expressed reasons for using the EMSC were for evaluation and review of available media and to obtain on loan media resources not available elsewhere.

3.) Increasing teacher competency was reported by EMSC staff as related to awareness of media and its selection and evaluation.

4.) EMSC staff in "highly rated" centers spent more time with users than staff in other EMSC's.

5.) Curriculum planning was identified as the area in which staff in "highly rated" EMSC's needed additional training.

6.) The EMSC staff ranked selection, teacher awareness, and media training as the goals of the center while teachers felt the major purpose of the EMSC was to distribute media.

7.) The most often expressed new service planned by EMSC's was increased evaluation of media and programs.

8.) Media for EMSC's was overwhelmingly evaluated by preview with the top third rated centers using a combination of staff and users while the lower third relied upon user judgement alone.

9.) The selection of media for the EMSC collection was based most often upon requests from users and staff (31 per cent), items approved by the staff and specialists (27 per cent), and items examined at the center (17 per cent).

10.) About two-thirds of the EMSC's maintained media evaluation files.

11.) EMSC's by a two to one margin emphasized collections of media rather than in-service training.

On the topic of media previews and evaluation, the investigators commented:

> In some centers the director does the evaluation, in others it is done by the staff....In only a very few situations is the evaluation of media done by committees of users (p. 80).

Overall the study seemed to point out that teachers use EMSC's (when available) more than any other group, materials

are selected for the EMSC by directors and staff although user committees are preferred, and the major purpose of the EMSC is to provide a broad collection of media for teachers and others from which to select and examine.

Breen and Ary (1972) set out to determine who selects instructional films for schools to rent or purchase. A brief questionnaire was sent to 174 randomly selected superintendents of American school districts. The results were tabulated and analyzed in terms of geographic region, size of school district, and grades included. Utilizing 114 returns, the investigators noted no systematic differences in regard to these factors of analysis. However, with a mean of 2.3 categories of selectors checkmarked by respondents, the individual teacher was found to be the most important single element in film selection (54.5 per cent), with building principals (46.5 per cent), librarians (40.4 per cent), and audiovisual coordinators (32.5 per cent) following. Film rental was found to be a more popular course of action than outright purchase while only 13.2 per cent of the responding superintendents indicated their district had a stated policy for the evaluation and selection of films. The investigators concluded that film purchasing decisions typically involve two to three people with the most important being the classroom teacher. In addition, while administrators, librarians, and audiovisual coordinators may be involved in nonprint media selection to some extent, there is in general a lack of formal policy for the selection and evaluation of films.

DISCUSSION

From the preceding review it is possible to summarize the theoretical concepts underlying nonprint software media selection, as well as the actual field practices uncovered in terms of the three areas of analysis described at the beginning of this paper.

THEORY

I. Who selects nonprint media?

As might be expected this depended to a significant extent upon the point of view of the particular text examined. Library selection texts give the responsibility solely to the librarian while media utilization texts charge the teacher with the final authority. The other categories vacillated among librarians assisted by teachers, librarians and teachers working as co-equals, media directors and teachers as partners, and media directors assisted by teachers. Although variance of this type was not unexpected, the lack of any consensus across categories is worth noting. School library media centers most often were portrayed as utilizing shared responsibility among teachers and librarians for selection. Occasionally reference was made to enlisting input from administrators and students, but from the lack of discussion about these two groups, their role in selection is theoretically minimal. Media directors were given final authority over selection in school situations where the existence of a library media center was not acknowledged. Responsibility for selection in

academic library media centers was never specifically mentioned in any of the works reviewed, however, the implication was clear that the librarian or the media director (with the assistance of faculty members) was ultimately responsible depending upon the category of text consulted. Public library selection was presented as naturally falling under the jurisdiction of the librarian.

Of more than passing interest was the conceptualization by Erickson (1968) of two levels of nonprint media selection. The first where teachers select media for classroom instruction and the second where the media director selects and presumably stores items for district wide use, It appears that media directors are portrayed as perceiving their role as supportive to and complementary of the classroom teacher. That is, the media director selects nonprint media for district use while coordinating and supporting the individual teacher's selection of media for classroom use. While not necessarily accepting this model as it stands, one must recognize from the literature the existence of two major spheres of nonprint media selection. One is primarily concerned with the selection of nonprint media for a library media center collection involving to various degrees librarians, media directors, and teachers; while the other is devoted to the task of individual teachers choosing media for classroom instruction. The ways and extent to which these processes overlap is unclear from the sources reviewed. It is clear, however, that each category of text has its own image of how media is organized and made available for use.

It appears that theoretically librarians, media directors, and teachers all select nonprint media depending upon the type of library media center and the point of view of the text examined.

II. How are nonprint media selected?

Little specific theory was found directed toward a particular type of library media center. Most works examined dealt with the subject in terms of an educational context and as such operated against the background of a school setting. The school library media center most often was said to rely upon the preview process with the value of a published review ranging from very high for library oriented texts to of little consequence (i.e. no mention) in media texts aimed at classroom teachers.

To a greater extent than found when considering who selects nonprint media, a commonality of viewpoints was expressed by the texts concerning the techniques for carrying out the selection process. All agreed upon the need for previewing as the only really satisfactory method of determining the worth of media items. Books representing librarians stressed the use of published reviews and pre-selected lists of media and annotated review guides, while works geared toward media directors were seen to rely more on the combined expertise of a group preview committee or a combination of preview efforts (e.g. preview panels, classroom tryouts, and preview by the individual). All categories of texts seemed to recognize the importance of selection criteria but variance was found in the

degree of specificity actually reported. Most favored local formulation of criteria within general guidelines while variety was found on a medium by medium basis. While library texts often mentioned the need for a formal statement of selection policy to guide institutional practice, texts in instructional technology and particularly those oriented toward classroom teachers neglected this aspect of the selection process. The use of formal means for recording the evaluation of nonprint media and preserving this information for the future use of media selectors, was represented as an important part of selection by all categories of works reviewed except those serving as library selection textbooks.

By far the most dominate theme expressed by all of the items reviewed was the continuing necessity for personally previewing media items as a basis for selection. While ways of implementing the preview technique were found to vary, the essential need for the process itself was continually stressed. School and academic library media centers were said to use individual and group preview drawing upon teacher and faculty participation while public library media centers relied more extensively upon librarian preview with the group technique (among librarians) advocated as best. Library selection texts recognized the growing importance of published critical reviews and compared their use with nonprint media to that of print, where their assistance in selection is often invaluable. Touting the review as a time saving and less expensive process, the personal preview was none the less necessary because of

the general inferiority of nonprint reviews to those available available for printed media, and also because of the relatively higher cost of nonprint items. Media utilization texts for teachers stressed completely the need for personal preview and linked this technique with instructional effectiveness.

It would seem then that nonprint media should be selected in all types of library media centers primarily by preview, employing a variety of evaluation criteria largely formulated on the local level, and with the possible assistance of published reviews where and when available.

III. Under what conditions are nonprint media selected?

The conditions under which nonprint media are theoretically selected for library media center agencies are largely a function of the perception of the author or authors of the textbooks treating the issue. As pointed out in the preceding discussion, librarians, media directors, and teachers all have responsibility to some extent for the selection of nonprint media and utilize essentially the same techniques. However, it is apparent from the published literature reviewed that a clear theoretical separation of responsibilities has not been formulated and that depending upon the professional orientation of the writer and to a significant extent the local philosophy prevailing, any number or combination of conditions might exist and operate either together or separately from one another.

School and academic library media centers appear to operate under the dual influence of librarians or media directors

and teachers or professors with each group having a somewhat different view of what nonprint media selection entails and who is involved. As discussed earlier, two phases of selection are usually present and are often intermingled by the sources reviewed for this investigation. Teachers, quite naturally, were seen to link the selection of nonprint media directly to instructional objectives and to perform this function most often at the local level. They usually choose materials from the existing library media center collection but do on occasion select items from outside sources, sometimes with the assistance of the librarian or the media director. This individual use of media by teachers for instruction is quite different from the defined scope of this investigation and should be reserved for another study. However, it is worthwhile to note that in the works reviewed only one (Erickson, 1968) made any attempt at differentiating these two tasks.

In the school library media center when the librarian exercises the major responsibility for selection the library selection texts view the process as essentially the same as that involved in the selection of books and therefore advocate employing the same procedures for selecting all mediums. The librarian is theoretically portrayed as choosing media for the individual use of his clients in the library media center facility. Selection in this case entails the librarian understanding a priori the various needs of his clientele for nonprint media and acting accordingly in choosing materials for the library media center's collection. The librarian must

be familiar with the various forms of media, recognize that nonprint are just as potentially popular with clients as printed media, and evaluate nonprint media against essentially the same criteria used for books. Available selection aids are most frequently oriented towards the school library media center and often are descriptive in nature and must be cautiously used. When librarians and teachers share responsibility for selection in school library media centers the involvement of teachers in the process is theoretically linked (by the works representing the organization of media for librarians) with their use of the material for instruction. This theme is repeated again by the two groups of writings aimed at instructional technologists and teachers. The condition of building a "quality collection" of media for the school library media center is inextricably interwined with student instruction. Thus the librarian and his teacher colleagues must theoretically be fully informed about the school curriculum and reflect its priorities in their selection decisions. Selection criteria following several generic themes is then largely developed at the local level to meet specific needs.

The media director acting alone or in concert with faculty members invariably is portrayed as conceiving of nonprint media as mechanisms for instruction. The selection/evaluation process is a rigorous one requiring specialized training which the media director theoretically has and willingly imparts to his teacher colleagues.

The academic library media center was not expressly

mentioned in the sources consulted but the implication was apparent that due to the nature of educational institutions the conditions surrounding nonprint media selection in school agencies would most probably exist (with only minor variation) in academic library media centers as well.

The public library media center differs from its school and academic counterparts in that the librarian exercises almost sole responsibility for nonprint selection and does not necessarily view nonprint media as inherently instructional. Materials are chosen most frequently with the conception of individuals using the library's nonprint collection in an independent mode for information or entertainment. The various aims of the institution in serving a wider clientele than just students and teachers are thus expressed by this lack of an instructional emphasis.

One factor which appeared to theoretically link the different types of library media centers was the recommended use of educational media selection centers by librarians, media directors, and teachers for the selection of nonprint media. This could be one element counteracting the predominately local building level selection advocated by a majority of the sources consulted.

On the whole the conditions under which nonprint media are theoretically selected appear to vary primarily according to the professional orientation of the selector and secondly by the type of library media center examined.

PRACTICE

I. Who selects nonprint media?

None of the studies reviewed dealt specifically with selection for the library media center collection regardless of institutional setting. With a few exceptions most examined the selection of nonprint media within the context of direct utilization for instruction. Where individuals could be identified as responsible for selection, teachers were shown to select films and other media for purchase, rental, or free loan for classroom use. This finding of the teacher as the most important element in nonprint selection appears to dominate throughout the studies examined. The role of other individuals in the selection process seems at times to augment and at other times replace that of the individual teacher. Whether cooperating with teachers or acting alone, school administrators exercise the second largest influence on nonprint selection. Interestingly, media directors appear to have little impact upon the selection of nonprint media for class use other than to act as resource consultants, while the importance of the librarian seems to be increasing. Where the librarian was mentioned only once (and in last place by the NEA in 1946), Breen and Ary (1972) find the librarian as the next most likely individual to select nonprint media behind teachers and school administrators. Conversely, the media director was shown by the NEA (1946) to follow only teachers and school administrators in selection importance, but by Gillingham (1958) as acting only as an advisor to teachers and then by Breen and Ary (1972)

as following the librarian in the selection process.

Selection of nonprint media for university audiovisual centers was investigated through the medium of films and their organization. Guss (1952) showed that audiovisual staff selected films with some input from faculty members while Blake (1955) found that media directors selected films with some input from teachers, school administrators, and students.

Media for educational media selection centers was shown by Rowell and Heidbreder (1971) to be selected most frequently by the center director, then staff members, and finally groups of users. As the EMSC functions primarily for the purpose of assisting in the selection of media, it was interesting to note that the most frequent users of EMSC's themselves were classroom teachers, followed by school administrators, librarians and audiovisual specialists. This ranking follows the selection pattern established by the studies mentioned earlier.

It appears that several individuals are usually active in the decisions surrounding the actual selection of nonprint media, but that for direct classroom use the teacher is the most important element while for specific collections of media (film libraries, audiovisual centers, and educational media selection centers) the agency head most often exercises selection authority.

II. How are nonprint media selected?

From the first study reviewed it was apparent that the methods of nonprint media selection and evaluation vary from

one local institution to another. Where individual techniques could be isolated, the preview was the most commonly employed, followed by advertisements in professional journals. Advice from school administrators and producer's blurbs provided additional input for elementary and secondary school teachers respectively. While the group preview method was reported by Blake (1955) to be preferred by media directors, it was also represented as impractical, inefficient and not often used. Specified criteria for selection were often lacking and always a matter of local concern. Guss (1952) arranged the criteria used by film libraries in four general categories but found wide variance among individual institutions. Each film, however, was evaluated by itself according to its own particular frame of reference. Formal statements of selection policy were found in only a few agencies while the educational media selection centers were virtually alone in maintaining a file of previous evaluations for selector use and referral.

It appears that nonprint media are selected in many instances with little or no guidance from specified criteria, formal statements of selection policy, or files of previous evaluations.

III. Under what conditions are nonprint media selected?

It is clear from the studies reviewed that nonprint media are selected primarily for the purpose of enhancing instruction. This is interpreted largely as a matter of local concern with the individual teacher most often invested with the final responsibility for choosing nonprint media. While

the NEA (1946) concluded that coordination of media selection and evaluation was necessary on an administrative level, most educational institutions were found in later studies not to have implemented this recommendation and were instead marked by their casual approach to nonprint media selection. This most often was reflected by the lack of specific policies or criteria for the guidance of selectors. Both of these positions were reflected by Guss (1952) when she noted that cooperation was needed among individual agencies to possibly reduce redundant operations. In audiovisual centers Blake (1955) found that media directors spent less than 20 per cent of their time previewing media, preferred not to receive items automatically from producers, and felt that selection practices overall were a local function. The NEA (1970) found that teachers in smaller districts were more active in selecting media than those in larger ones while Breen and Ary (1972) noted that rental of films was more popular than purchase. Several conditions were found by Rowell and Heidbreder (1971) to affect media selection. Educational media selection centers were observed to increase teacher "awareness" of nonprint media while staff assistance to users was noted as more intensive in the highly rated centers. Staff needs centered on curriculum planning and a more thorough knowledge of the curriculum. The purpose of the educational media selection center was perceived by the staff as providing assistance to the user in media selection and awareness, and providing training in selection techniques. Users, however, thought

of the EMSC as primarily a place from which to withdraw (circulate) media. In addition, the EMSC represented a pre-selected collection of media from which users in turn chose, but for which they usually had only minimal input.

Overall, the conditions under which nonprint media are selected seem determined by local practice with the teacher largely responsible for their nature and influence in an instructional setting.

INTERPRETATIONS

Against the background of the foregoing analysis and summary of findings, it is apparent that nonprint media selection from the perspective of building library media center collections has been only very superficially explored and inadequately documented. The corpus of published literature is on the whole pragmatic and disparate, suffering from the lack of empirical verification from an underlying data base. The textual material examined was generally reflective of a trial and error belief based upon personal experience in presenting certain principles of selection. The few studies uncovered were generally limited in nature, descriptive in design, lacking in overall generalizable results, and reflective of the formal educational structure. Notably, the field of library service was virtually barren of empirical research relevant to the topic under investigation.

The first impression gained from the textbooks treating the subject of nonprint media selection was that there is nothing approaching an overall theory of the process. Rather,

general principles are espoused on a "take it on faith" basis with only minimal theoretical rationalization. The preview technique is an example of this thinking. One is never quite sure why the preview is best other than the pro-offered opinion that personally previewing an item of nonprint media is always superior to other methods of evaluation. Further, there was a general disregard by the texts concerning the overall structure of nonprint media selection, even within an educational context. The various steps were identified (to differing degrees) but intermingled with each other with no clear framework of the levels of selection which could conceivably exist. Only one author (Erickson, 1968) suggested a two-tiered selection pattern where classroom teachers choose nonprint media for direct instruction while others (librarians or media directors) presumably choose materials for an organized multimedia collection. This presented a confusing picture of selection behavior with teachers, librarians, media directors, and others all participating in the process but at unknown times, in unclear capacities, and with uncertain procedures.

The inadequacy of the theoretical literature was matched by the lack of relevant research describing and explaining the behavior of selectors bent on building library media center collections. The topic was marked by shallow conceptualization framed almost exclusively against the background of educational institutions. As the texts ignored the possibility of different selection levels, so too the studies uncovered reflected the same limited thinking. The discovery of the dual lack of

an overall selection theory with relevant empirical research greatly inhibited the aim of this study in comparing nonprint media selection with practice and as a result the interpretations and recommendations offered must be considered in the light of the limited nature of the documents reviewed.

In addition there was a pronounced lack of research incorporating a true multimedia focus. Most of the studies reviewed dealt almost exclusively with a single medium. Many studies suffered from the lack of a clear definition of what they meant by "audiovisual" or "instructional materials," with the inclusion of textbooks in some and the exclusion of anything other than motion pictures in others. The usefulness of the research studies located was further hampered by the lack of conceptualization relative to nonprint media as anything other than mechanisms for assisting with the process of formal instruction. While the educational purpose and context of most studies was recognized, comparison with the texts was difficult as at least one segment (i.e. selection texts for librarians) viewed nonprint media as having informational and recreational value as well as utility for direct instruction. Both the texts and studies examined were characterized by a lack of specificity concerning possible variables of importance to the selection process. Few differences were recognized or noted among school districts, grade levels, teacher qualifications and background, and other such characteristics. Notwithstanding the data collected, a largely impressionistic view of the topic at hand was therefore provided.

Given the limitations and problems associated with this area, some elements of nonprint media selection were found to be supported or refuted by the available research as compared with the textual literature.

The notion of the librarian or the media director as responsible for nonprint media selection in the school was found on the whole to be unfounded. With some exceptions, notably the head of the EMSC (Rowell and Heidbreder, 1971) or the head of an academic film library or audiovisual center (Guss, 1952, and Blake, 1955), the media director was found to be declining in importance relative to the selection of nonprint media. The librarian, on the other hand, while not exercising the greatest role in the process appears to be gaining in responsibility (Breen and Ary, 1972). Additionally, librarians and/or media directors sharing responsibility with teachers for the selection of nonprint materials was generally not upheld by the studies reviewed. Librarians and media directors may in some instances influence selection but rarely exercise final responsibility for the process as many of the texts purport. Interestingly, the role of librarians and media directors as consultants to others in the media selection process appears to be recognized. Gillingham (1958) found media directors augmenting teacher selectors while Rowell and Heidbreder (1971) identified high staff involvement with users at highly rated educational media selection centers.

Those texts portraying the teacher as responsible for selecting nonprint media were generally supported by the em-

pirical evidence uncovered. Within the framework of selecting for direct instruction, the teacher was seen as having final authority. From the studies reviewed, however, it is unclear as to where the responsibility for selecting materials for an organized collection lies. In educational media selection centers and audiovisual center/film libraries it appears that the professional staff do most of the selection, but it is unknown if this finding is generalizable to other organized collections, such as a library media center.

The preview as the best method for implementing the selection/evaluation of nonprint media seems to be preferred by a majority of individuals studied. However, whether this technique is actually used is unclear from the research available with conflicting evidence present. There was a lack of definition as to what form of preview (individual, group, classroom tryout, etc.) takes place most often and serious questions were raised about the practicality of the procedure. When the mode of selection was identified as group preview committees of teachers, the media director did not seem to exercise a leadership role as recommended by some texts, but rather acted as a resource person assisting the committees with preparations, etc. (Gillingham, 1958).

The texts frequently recommended adoption of a formal materials selection policy incorporating the principles and criteria used for selecting nonprint media. The evidence indicated, however, that few if any systems had any formal approach to nonprint selection, but rather were characterized by an air

of casualness. Files of completed nonprint media evaluations were identified as kept only by educational media selection centers (Rowell and Heidbreder, 1971) while many of the texts, particularly those from instructional technology, advocated their establishment and use. It was not clear from the EMSC study if the evaluation files were consulted on a regular basis and if so by whom--users or staff. A knowledge of the school curriculum was recommended by some texts (Saunders, 1968, and Davies, 1974) as important to the library media specialist in both selecting nonprint media himself and in cooperating with classroom teachers. A finding which might be linked to this recommendation was one in which EMSC staff in highly rated centers indicated a need for further training in curriculum planning and design (Rowell and Heidbreder, 1971). Whether this is also true for practicing library media professionals on the local level is only a matter for conjecture.

At least one textbook (Brown, Norberg, and Srygley, 1972) mentioned teachers as assuming an on-going responsibility for reviewing nonprint media in a subject area and periodically recommending titles for purchase. The evidence as indicated by the studies reviewed is conflicting. While Gillingham (1958) indicated that teacher committees may be empowered to specify gaps in the curriculum and note basic titles, the collective weight of the other studies examined shows teachers exercising input primarily for the selection of nonprint media associated with direct classroom instruction. The exact nature of teacher responsibility then is open to speculation. On the other hand,

teachers were admonished by Dale (1969) not to place an over-reliance upon administrative guidance in nonprint selection. The NEA (1970), however, found that many elementary school teachers were indeed looking to supervisory personnel for assistance with choosing nonprint software media. What effect this may exert upon selection (or instruction) is impossible to judge from the data available.

On the topic of administrative participation in selection, the research indicated that principals and supervisors clearly exercise a significant role in the selection of nonprint software media of either a direct or indirect nature, while the textbooks examined barely mentioned this group and by implication awarded them little importance in the selection process. Finally, the research collected for this paper clearly indicated the pre-eminence of the teacher in the selection of nonprint media in educational institutions, while the textbooks examined revealed no such consensus.

The selection characteristics (principles) presented above as compared with the empirical evidence available, indicate that the overall picture of who, how, and under what conditions nonprint media are selected is quite unsettled. Relative to the sources identified and reviewed, it may be concluded that the selection of nonprint software media for library media center collections is based largely upon a loose, unformulated conceptual base without empirical verification and documentation.

RECOMMENDATIONS

First and probably most important, is the need for an adequate and accurate current description of nonprint media selection behavior specific to the building of organized multimedia collections. The studies perused for this paper reveal a glaring lack of knowledge as to just what nonprint media selection for library media centers is, who performs it, how, and under what conditions. A survey of current pratice might reveal the nature and extent of the process, identify the variables associated with it, and suggest hypotheses which would contribute to a conceptual base. A normative study might also answer the question of whether a methodology of professional nonprint media selection actually exists relative to the library media center. It is possible that there is no overall pattern of selection behavior, but rather that it varies by locality and is based largely upon informality and the expediency of the moment. The research studies reviewed for this paper seem to indicate that this view has merit. However, since none of the studies aimed specifically at the library media center and since many of the studies are ten to fifteen years old and do not account for contemporary organizational patterns; one can not safely make valid generalizations as to the nature of nonprint media selection for this agency. Rather with the growing ascendancy of an organized collection of multimedia in all types of libraries, it seems plausible that a more rational and systematic process takes place.

If a methodology should be found to exist in a majority

of library media centers, then based upon known factors in the process it would be possible to hypothesize relationships leading to a better understanding of selection behavior. This knowledge might in turn allow the selection process to be improved and made more effective and efficient. It is possible, however, that nonprint media selection (especially when compared with print selection) is really an art without scientifically testable relationships and the best that can be expected is an accurate description of its observable characteristics. While this investigator tends to reject this latter alternative, only a well designed, representative study will assist in understanding and conceptualizing the process.

As one characteristic in the selection process clearly identified by the texts as a general principle, previewing provokes more questions leading to researchable solutions than possibly any other factor at this time. Given the large amount of time which is usually necessary to properly preview media items, it seems warranted to investigate its conditions of use. First, is previewing now actually practiced by nonprint media selectors as is almost universally espoused by the literature? Certainly the research findings are in conflict on this point. It is not possible without collecting data specifically aimed at this issue to state whether previewing nonprint media is implemented or more honored in the breach. Further, while the literature of education stresses the preview as basic and essential, the literature of librarianship seems to prefer published reviews (as the process is similar to choosing

books) while acknowledging the preview's value if reviews are unavailable. It might be possible to hypothesize that given the availability of published critical reviews, the librarian who selects nonprint media will tend to rely upon reviews, while teachers and media directors will favor direct previewing over the reviews even when available. This behavior might be a product of several factors including educational background, professional orientation, purpose in selecting the material, time available, and overall practicality. Another question is does the school library media center require different reviewing behavior than other types of library agencies? The rationale for this question is based upon the assumption that school library media center collections are selected for the purpose of assisting with direct student instruction and as such require a personal preview of an item of nonprint media to ascertain its appropriateness. Another type of library media center such as a public library, however, which would favor factors such as information and entertainment in choosing multimedia for potential users, would probably utilize published reviews and other selection aids more often. This is linked to the public library process of estimating future demand for an item (which is after all the way most books are chosen) rather than striving to meet immediate curricular needs as in a school library. Whether there are discernable differences in selection behavior patterns between types of libraries will have to be answered by empirical research. In the textual material reviewed for this investigation only one work

(Carter and Bonk, 1969) hints that possible differences might exist.

Another problem area which would lend itself to empirical study is the nature of nonprint media selection in schools with and without organized library media centers. The theoretical literature which exists often makes no distinction as to whether a school has the benefit of an agency of this type or not. The research, as previously mentioned, was guilty of ignoring the library media center in describing nonprint media selection practices. Based upon the principles espoused by the texts and the research available, however, it does not seem unreasonable to posit that schools with library media centers would exhibit a more formal pattern of nonprint selection behavior while those without such an agency would not. Variables could be identified and tested for relationships leading to an understanding of the process of nonprint selection in schools. Certianly this would be beneficial considering the expansion of school library media centers and the relative proportion of educational software budgets expended for nonprint items.

What would research aimed at probing (and hopefully solving) these and other problems surrounding nonprint media selection mean for the field? First, an accurate description of the selection process in all types of library media centers would add to the sum of knowledge and understanding and hopefully lead to improvements in the process. Another benefit would be the increased attention to a phase of library non-

print software media practice which has been, in this investigator's opinion, too little explored in favor of other areas such as problems of collection organization (i.e. cataloging, classification, storage systems, etc.). A continuing research effort directed to this topic would certainly have a cumulative effect deriving benefit for researchers in terms of assisting with the development of a theoretical model of selection behavior. Practitioners would be aided as well in terms of helping to establish priorities and leading to the administration of resources and services. Not least in importance would be a hoped for effect upon library media education. Research would enlighten the field as to actual and beneficial behavior in the selection of nonprint media and in turn could reasonably be expected to be reflected in materials selection courses and manuals of study.

The tasks involved in selecting nonprint software media, whether for direct instructional use or for an organized library media center collection, are varied and difficult to implement. Yet the use of media for instruction increases and organized collections proliferate. If selecting nonprint media is similar to a physician's diagnosing patients, then a broad research attack on the topic seems imperative.

espoused by the textbooks were found to be unsupported by the available evidence, while some aspects of selection behavior identified by the research studies were not even mentioned by the textual literature. Although several researchable hypotheses were suggested by this study, it was recommended that research aimed specifically at organized library media collections (accurately and comprehensively depicting the nature of nonprint software media selection as a process) be carried out first; followed by the testing of hypothetical relationships and then by experimental research designs all aimed at describing, explaining, predicting, and possibly improving the behavior of nonprint media selectors.

SUMMARY

The selection of nonprint software media for library media center agencies was investigated relative to the theory and practice as reported by the literature of library service, instructional technology, and education. The importance of the selection process was briefly introduced in the context of proliferating communications mediums and expanding library collections. Questions surrounding the conceptualization of the selection process and its relationship to actual practice led to the problem statement. The solution called for determining from the literature who, how, and under what conditions nonprint software media are selected for library media agencies. Both speculative and data based literature was accessed with eleven textbooks and eight research studies selected for review. The textbooks were broken into four groupings according to intended purpose and audience, and broadly analyzed for their contributions toward establishing a theory of nonprint media selection behavior. The research studies were reviewed for evidence indicating actual field selection practice. A discussion of the theory and practice identified was followed by interpretation and comment upon the findings. Recommendations for a continuing research effort concluded the study.

Overall, the literature was assessed as fragmentary and generally not conducive to the formulation of generalizations regarding the selection of nonprint software media. The contributions of the textual literature amounted to expressions of general principles seemingly based upon experience, while

a general theoretical framework for the selection of nonprint media remains unformulated. The limited nature of the studies available was marked by their educational focus and almost complete inattention to the building of organized media collections. The lack of relevant empirical data precluded thorough analysis comparing theory with practice although several impressions emerged.

While librarians, media directors, and teachers were all portrayed as theoretically responsible for the selection of nonprint media, the available evidence suggested that in an educational context the teacher generally assumes the greatest role in the process. Further, although several methods for evaluating media items were suggested, the personal preview was recommended most often and found by a majority of the studies examined to be preferred by nonprint media selectors. The conditions under which nonprint media are selected were portrayed in the texts as diffuse and of a highly localized nature. The available evidence generally supported this view, depicting an informal approach to the process in most situations. Interestingly, supervisors were identified by some studies as playing a significant role in nonprint media selection in school situations while the texts downgraded this group.

Research of a descriptive nature was recommended as a first priority to provide a normative survey of current practice and further identify the variables associated with nonprint selection. Questions regarding topics uncovered by the study were suggested as possible leads to further research

incorporating hypothesis testing as well. The overall conclusion of the study related that who, how, and under what conditions nonprint media are selected for library media centers remains largely unresolved without an adequate theoretical base or thorough empirical investigation.

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